

FIG. 1

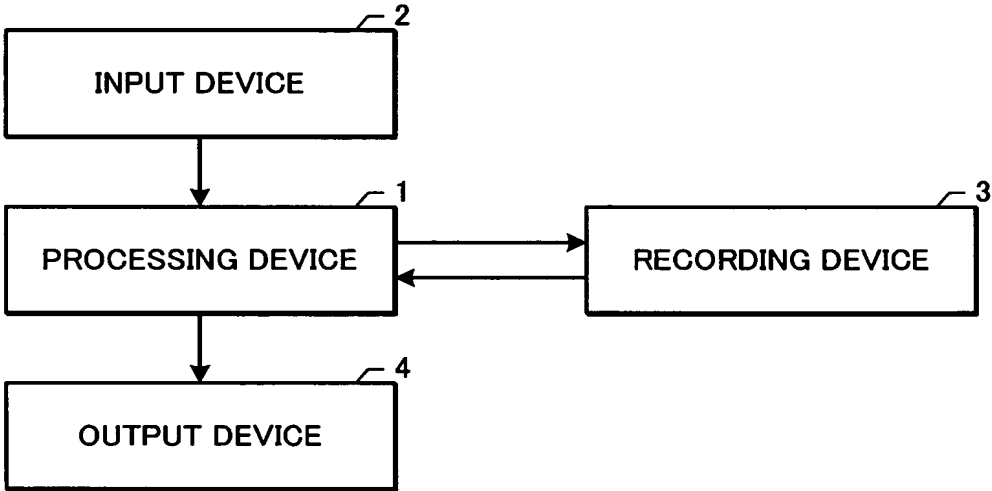


FIG. 2

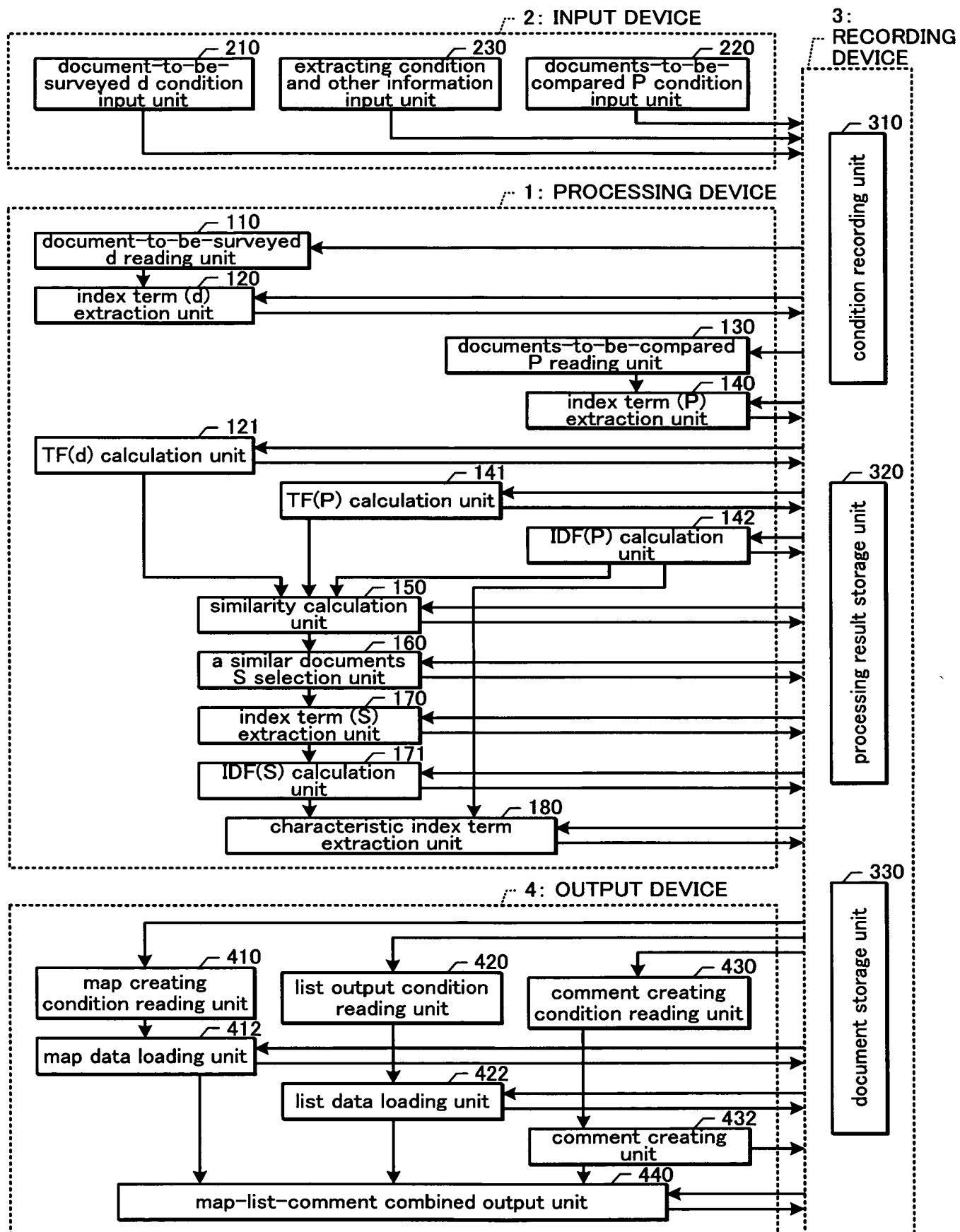


FIG. 3

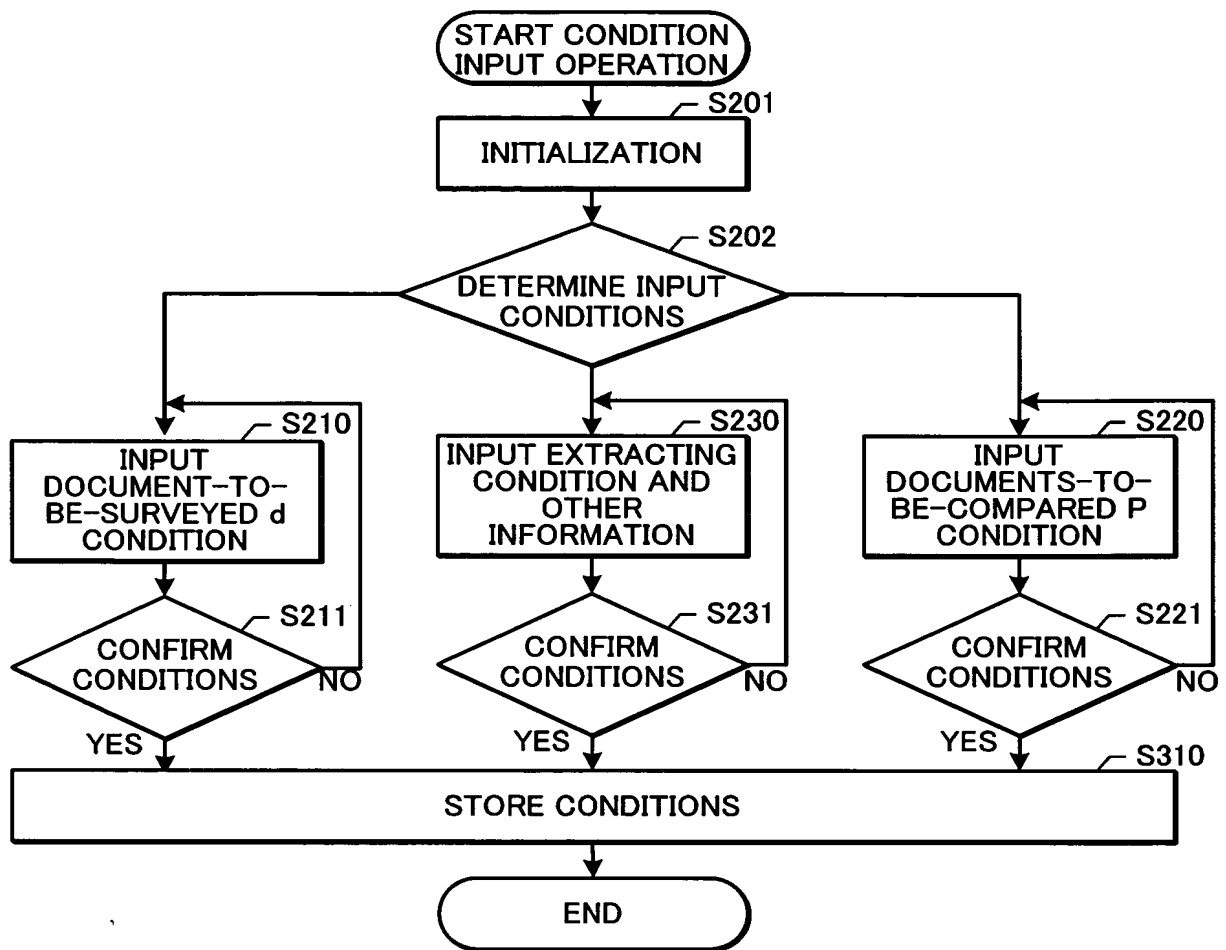


FIG. 4

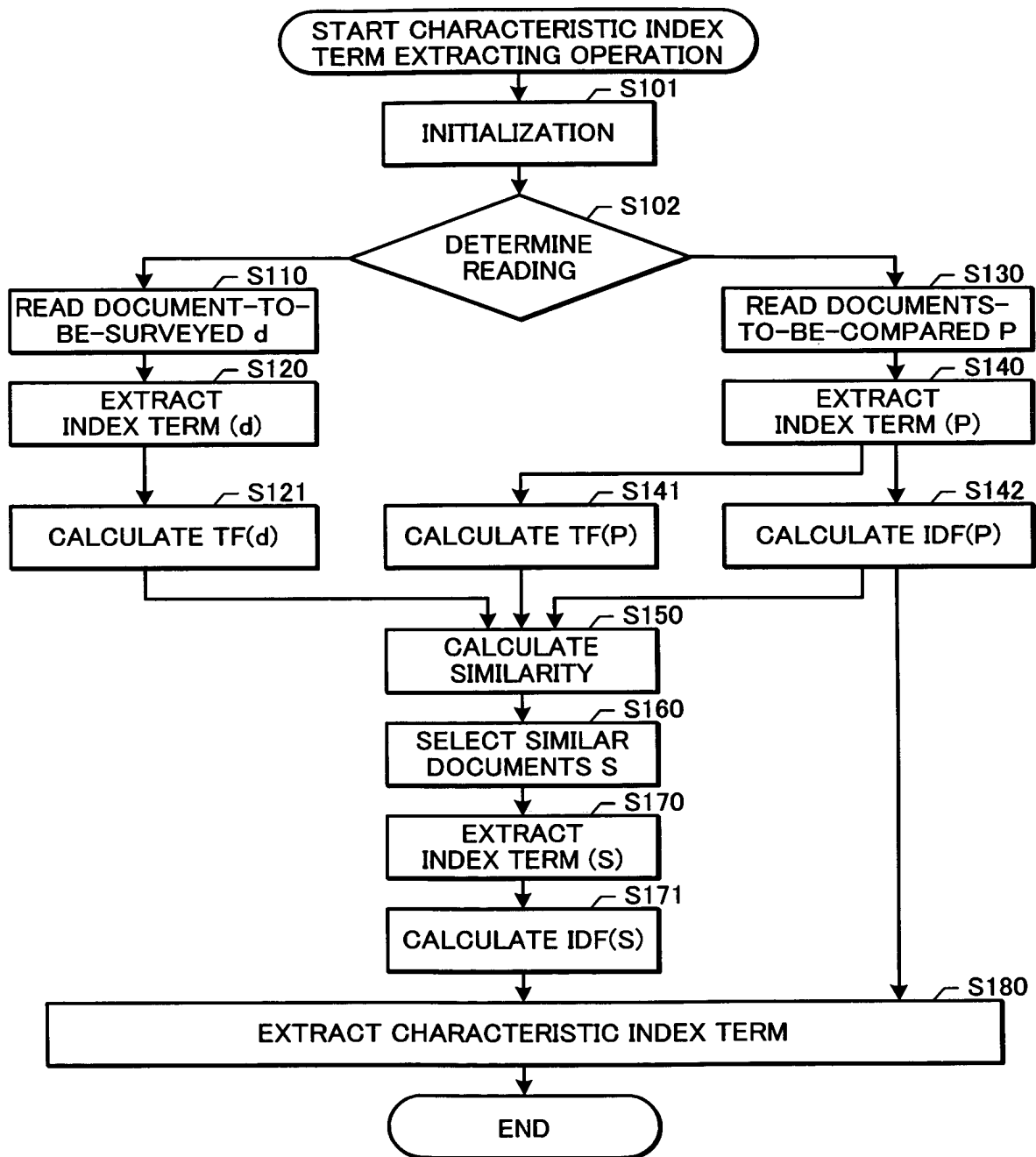


FIG. 5

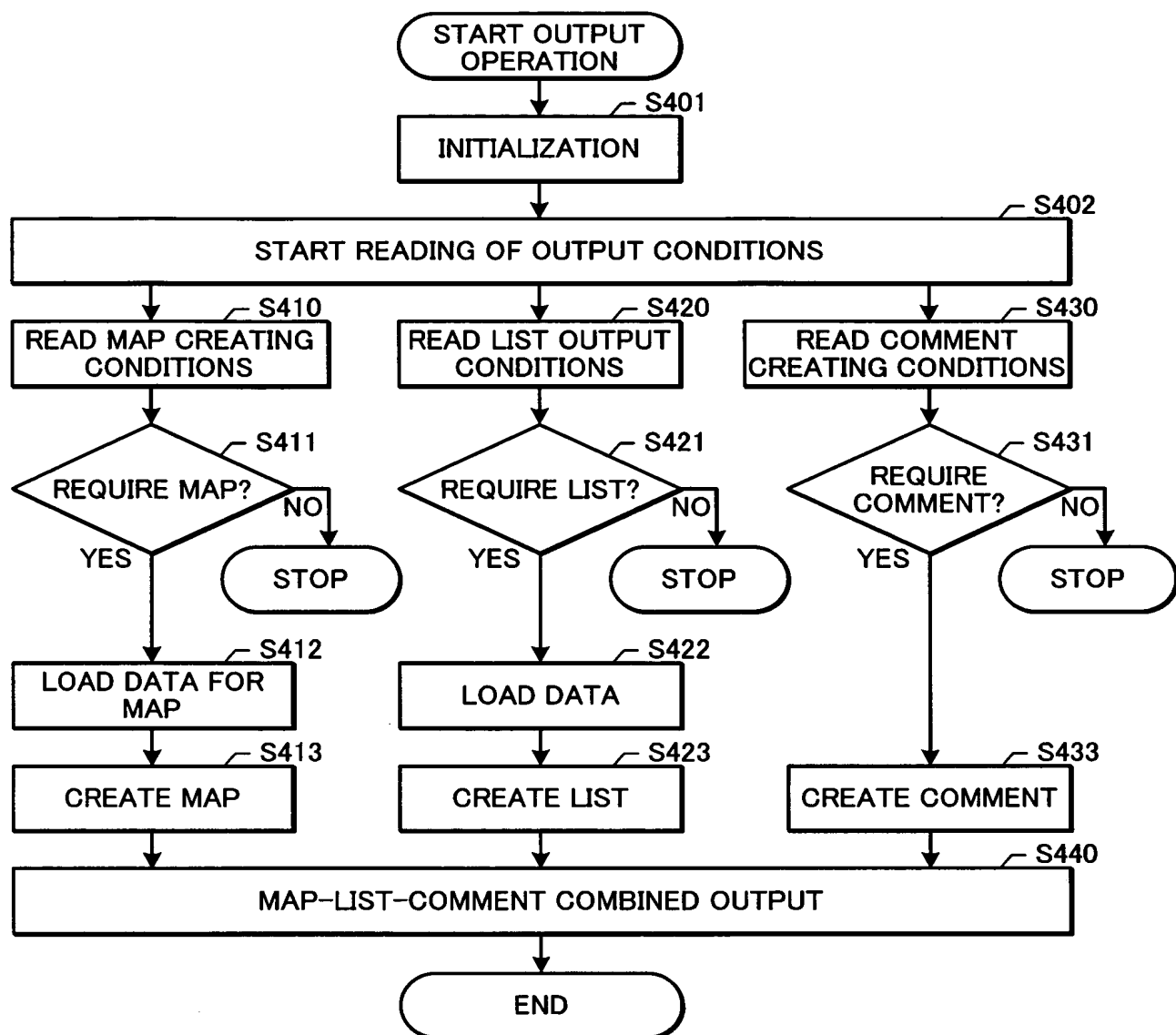


FIG. 6

CHARACTERISTIC INDEX TERM EXTRACTING DEVICE INPUT CONDITION SETTING (1)		
SELECT CONDITIONS IN THE WINDOWS BELLOW		<div style="border: 1px solid black; padding: 2px; display: inline-block;">BACK</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">SET</div>
TARGET DOCUMENT		
document-to-be-surveyed	<input checked="" type="checkbox"/>	
documents-to-be-compared	<input type="checkbox"/>	
DOCUMENT TYPE		
unexamined patents	<input checked="" type="checkbox"/>	
registered patents	<input type="checkbox"/>	
utility models	<input type="checkbox"/>	
academic documents	<input type="checkbox"/>	
		DATA READ
		company DB1 <input type="checkbox"/>
		company DB2 <input type="checkbox"/>
		JPO IPDL <input type="checkbox"/>
		PATOLIS <input type="checkbox"/>
		other commercially available DB1 <input type="checkbox"/>
		other commercially available DB2 <input type="checkbox"/>
		FD Document 1 <input type="checkbox"/>
		CD Document 2 <input type="checkbox"/>
		MO Document 3 <input checked="" type="checkbox"/>
		DVD Document 4 <input type="checkbox"/>
		others Document 5 <input type="checkbox"/>
		Document 6 <input type="checkbox"/>

FIG. 7

CHARACTERISTIC INDEX TERM EXTRACTING DEVICE INPUT CONDITION SETTING (2)		
SELECT CONDITIONS IN THE WINDOWS BELLOW		<div style="border: 1px solid black; padding: 2px; display: inline-block;">BACK</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">SET</div>
TARGET DOCUMENT		
document-to-be-surveyed	<input type="checkbox"/>	
documents-to-be-compared	<input checked="" type="checkbox"/>	
DOCUMENT TYPE		
unexamined patents	<input checked="" type="checkbox"/>	
registered patents	<input checked="" type="checkbox"/>	
utility models	<input type="checkbox"/>	
academic documents	<input type="checkbox"/>	
		EXTRACTION CONTENT
		claims <input checked="" type="checkbox"/>
		related art <input type="checkbox"/>
		object of the invention <input type="checkbox"/>
		means and effect <input type="checkbox"/>
		embodiments <input type="checkbox"/>
		description of the drawings <input type="checkbox"/>
		drawings <input type="checkbox"/>
		abstract <input checked="" type="checkbox"/>
		bibliographic items <input type="checkbox"/>
		procedural information <input type="checkbox"/>
		registration information <input type="checkbox"/>
		others <input type="checkbox"/>
		DATA READ
		company DB1 <input checked="" type="checkbox"/>
		company DB2 <input type="checkbox"/>
		JPO IPDL <input type="checkbox"/>
		PATOLIS <input type="checkbox"/>
		other commercially available DB1 <input type="checkbox"/>
		other commercially available DB2 <input type="checkbox"/>
		FD <input type="checkbox"/>
		CD <input type="checkbox"/>
		MO <input type="checkbox"/>
		DVD <input type="checkbox"/>
		others <input type="checkbox"/>

FIG. 8

CHARACTERISTIC INDEX TERM EXTRACTING DEVICE EXTRACT CONDITION SETTING			
SELECT CONDITIONS IN THE WINDOWS BELLOW			<div style="border: 1px solid black; padding: 2px; display: inline-block;">BACK</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">SET</div>
INDEX TERM EXTRACTING CONDITION		SIMILAR DOCUMENTS SELECTING CONDITION	
internal keyword clipping 1	<input checked="" type="checkbox"/>	number of similar documents	top 100 cases <input type="checkbox"/>
internal keyword clipping 2	<input type="checkbox"/>	number of non-similar documents	top 1000 cases <input type="checkbox"/>
external keyword clipping 1	<input type="checkbox"/>		top 3000 cases <input checked="" type="checkbox"/>
external keyword clipping 2	<input type="checkbox"/>		top 5000 cases <input type="checkbox"/>
			numerical input <input type="checkbox"/>
SIMILARITY CALCULATION METHOD			
similarity 1	<input checked="" type="checkbox"/>		
similarity 2	<input type="checkbox"/>		
similarity 3	<input type="checkbox"/>		
similarity 4	<input type="checkbox"/>		
similarity 5	<input type="checkbox"/>		
similarity 6	<input type="checkbox"/>		

FIG. 9

CHARACTERISTIC INDEX TERM EXTRACTING DEVICE OUTPUT CONDITION SETTING			
SELECT CONDITIONS IN THE WINDOWS BELLOW			<div style="border: 1px solid black; padding: 2px; display: inline-block;">BACK</div> <div style="border: 1px solid black; padding: 2px; display: inline-block;">SET</div>
MAP CALCULATION INFORMATION		OUTPUT DATA	
X axis: IDF(P)	<input checked="" type="checkbox"/>	original concept terms	none <input type="checkbox"/>
Y axis: IDF(S)	<input checked="" type="checkbox"/>	specialty terms	top 5 terms <input type="checkbox"/>
		similar documents prescribed terms	top 10 terms <input type="checkbox"/>
		COMMENT	top 15 terms <input type="checkbox"/>
		(free entry)	top 20 terms <input checked="" type="checkbox"/>
			numerical input <input type="checkbox"/>
MAP FORMAT			
1 map	<input checked="" type="checkbox"/>		
2 maps	<input type="checkbox"/>		
1 map with list	<input type="checkbox"/>		
2 maps with list	<input type="checkbox"/>		
1 map with comment	<input type="checkbox"/>		
2 maps with comment	<input type="checkbox"/>		
1 map with list and comment	<input type="checkbox"/>		
2 maps with list and comment	<input type="checkbox"/>		

FIG. 10

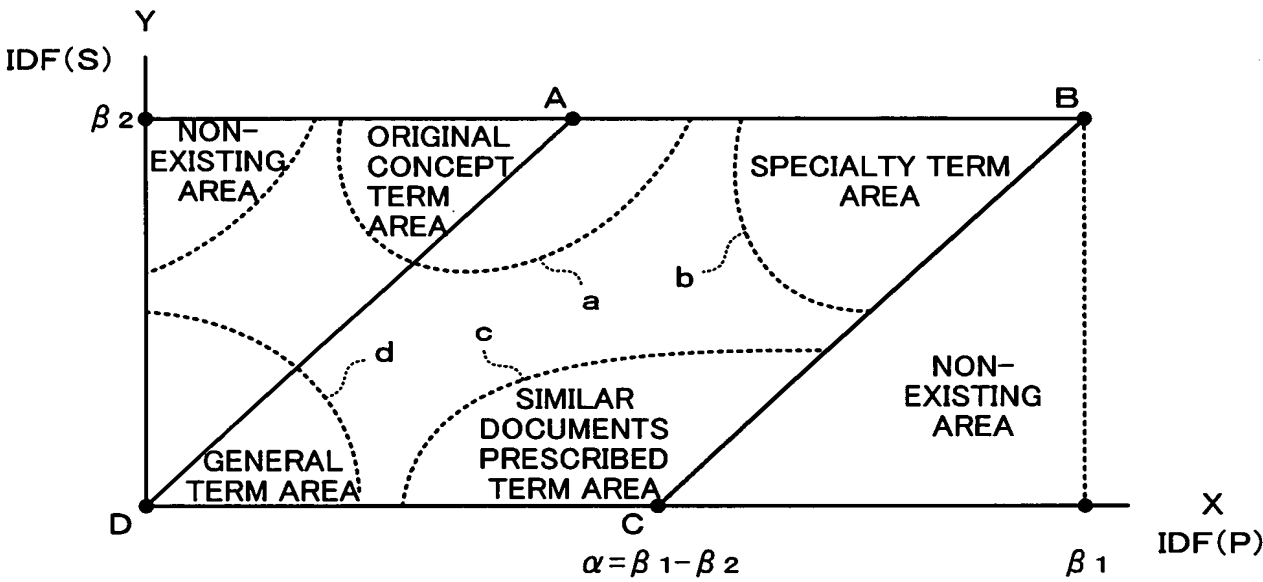


FIG. 11

"External Auxiliary Storage Device" IDF Plane

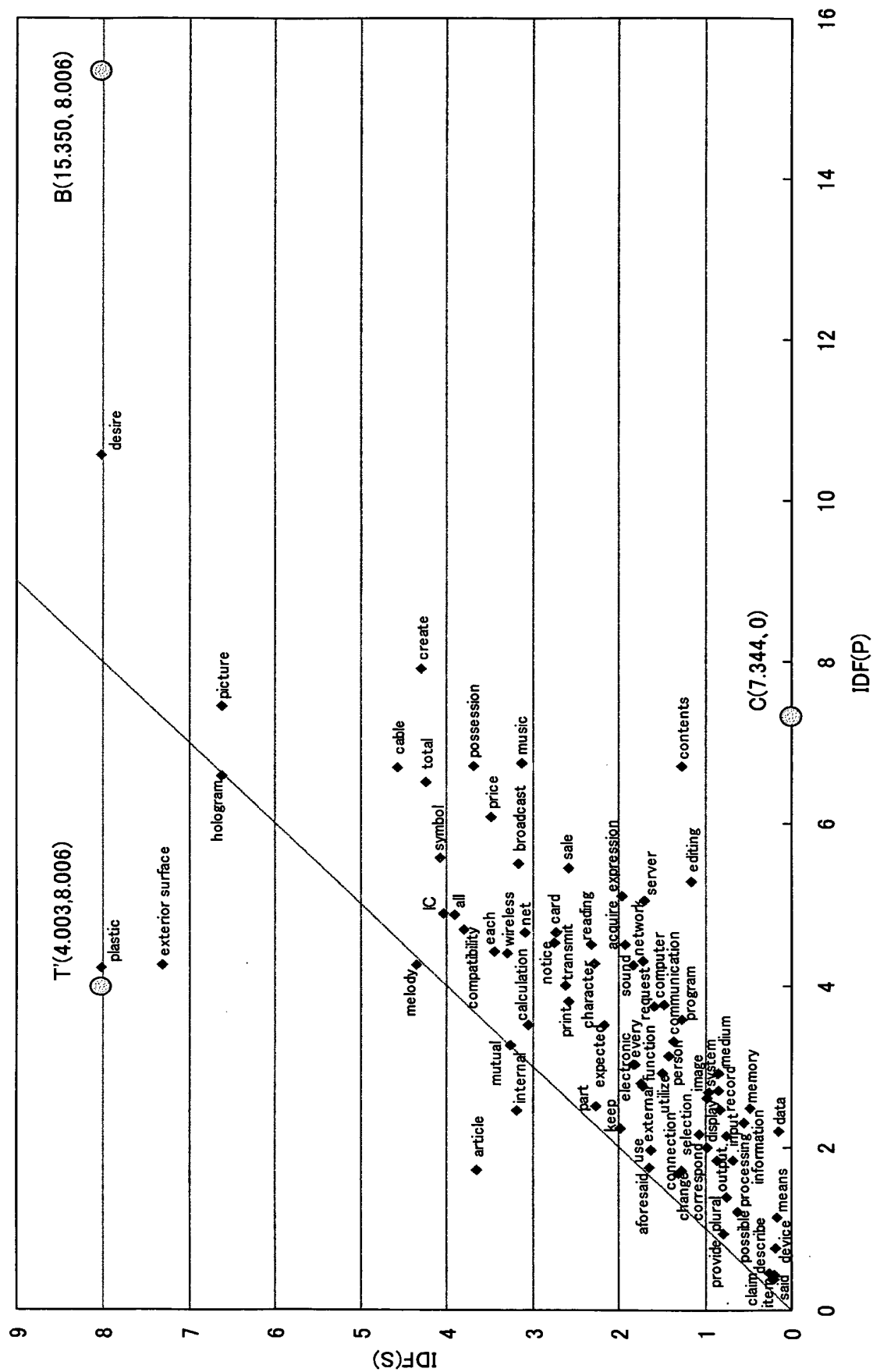


FIG. 12

“External Auxiliary Storage Device”
 Extracted up to 20 words from each area

Order of X' value	a: Original concept terms	b: Specialty terms	c: Similar documents prescribed terms	d: General terms
1	picture		contents	aforesaid
2	hologram		editing	provide
3	symbol		expression	claim
4	IC		server	item
5	all		acquire	describe
6	compatibility		network	said
7	net		sound	keep
8	card		computer	use
9	notice		request	change
10	each		program	connection
11	wireless		communication	possible
12	character		person	device
13	exterior surface		every	plural
14	melody		electronic	means
15	plastic		medium	output
16	transmit		utilize	correspond
17	print		function	external
18	calculation		external	function
19	expected		record	selection
20	communication		system	processing

FIG. 13

"Urgent Message" IDF Plane

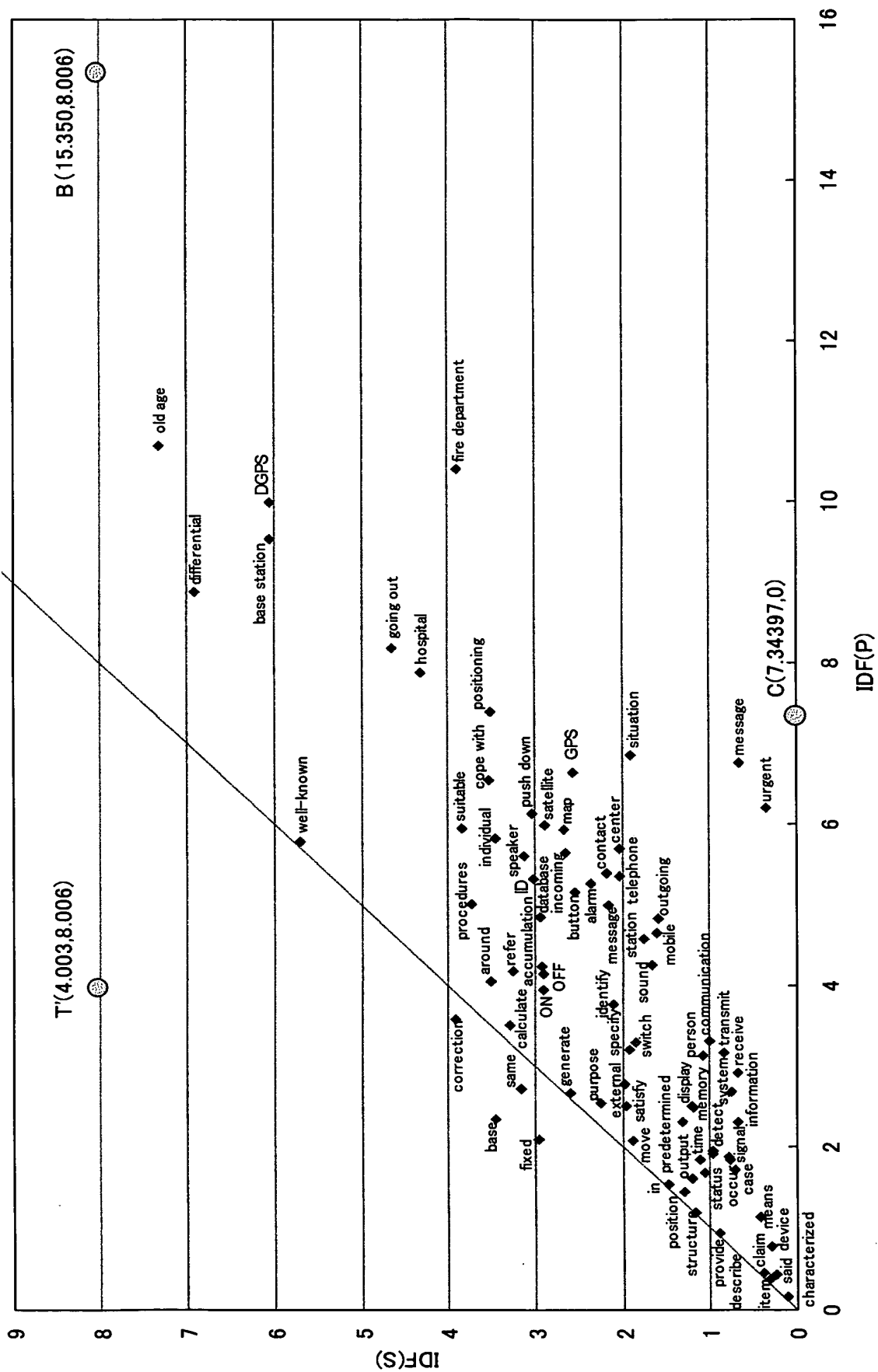


FIG. 14

“Urgent Message”
 Extracted up to 20 words from each area

Order of X' value	a: Original concept terms	b: Specialty terms	c: Similar documents prescribed terms	d: General terms
1	differential	fire department	situation	structure
2	well-known		message	in
3	procedures		urgent	characterized
4	database		center	provide
5	accumulation		telephone	claim
6	refer		outgoing	item
7	OFF		mobile	describe
8	around		station	position
9	ON		sound	move
10	identify		communication	said
11	correction		switch	predetermined
12	calculate		specify	device
13	switch		transmit	satisfy
14	specify		person	status
15	person		receive	means
16	external		external	output
17	same		system	external
18	system		satisfy	detect
19	generate		memory	occur
20	purpose		display	time

"Hair Shampoo" IDF Plane



FIG. 16

“Hair Shampoo”
 Extracted up to 20 words from each area

Order of X' value	a: Original concept terms	b: Specialty terms	c: Similar documents prescribed terms	d: General terms
1	comb	fly away	amphoteric	said
2	mL	Polyoxyethylene oleate	hair	the
3	potassium	methylcarboxybetaine	hydroxyalkyl	body
4	medicinal effect	dialkyl diallyl ammonium	bubbles	state
5	age	dried	skin	characterized
6	act	methylglucoside	anion	after
7	external use	creamy	cation	usage
8	damage	mile	fatty acid	claim
9	medium	wash hair	silicone	item
10	static charge	shampoo	ammonium	describe
11	handling		rinse aid	provide
12	accumulation		alkenyl	invention
13	protein		hydrosoluble	etc.
14	trouble		alcoholic	change
15	process		alcohol	range
16	parallel use		interface	use
17	finger		remainder	less
18	long time		methyl	exist
19	long term		feeling	degree
20	brush		sum	amount

FIG. 17

"External Auxiliary Storage Device" IDF Plane



FIG. 18

"External Auxiliary Storage Device" IDF Plane



FIG. 19

"External Auxiliary Storage Device" TFIDF Plane

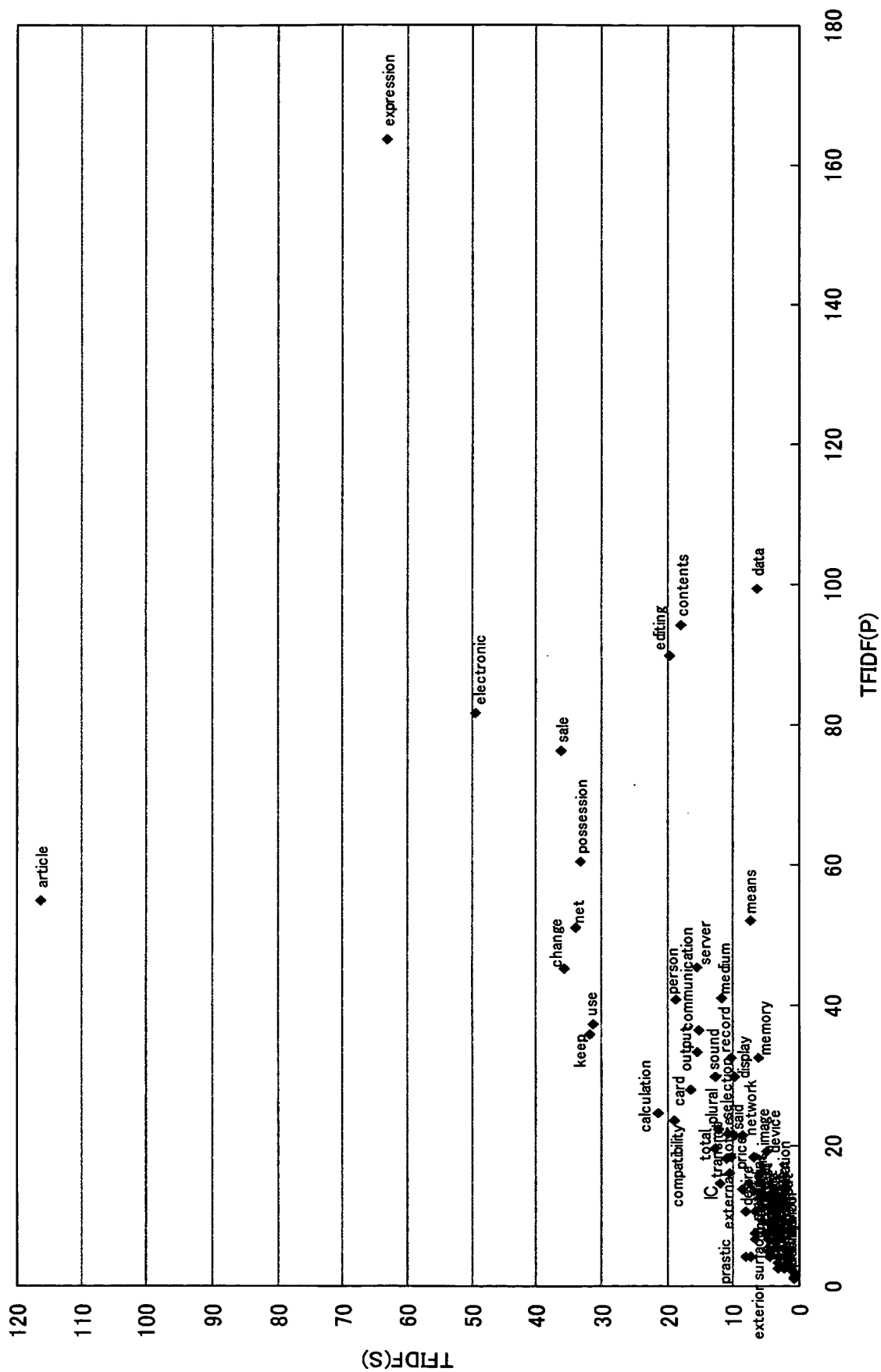


FIG. 20

"External Auxiliary Storage Device" DF Plane

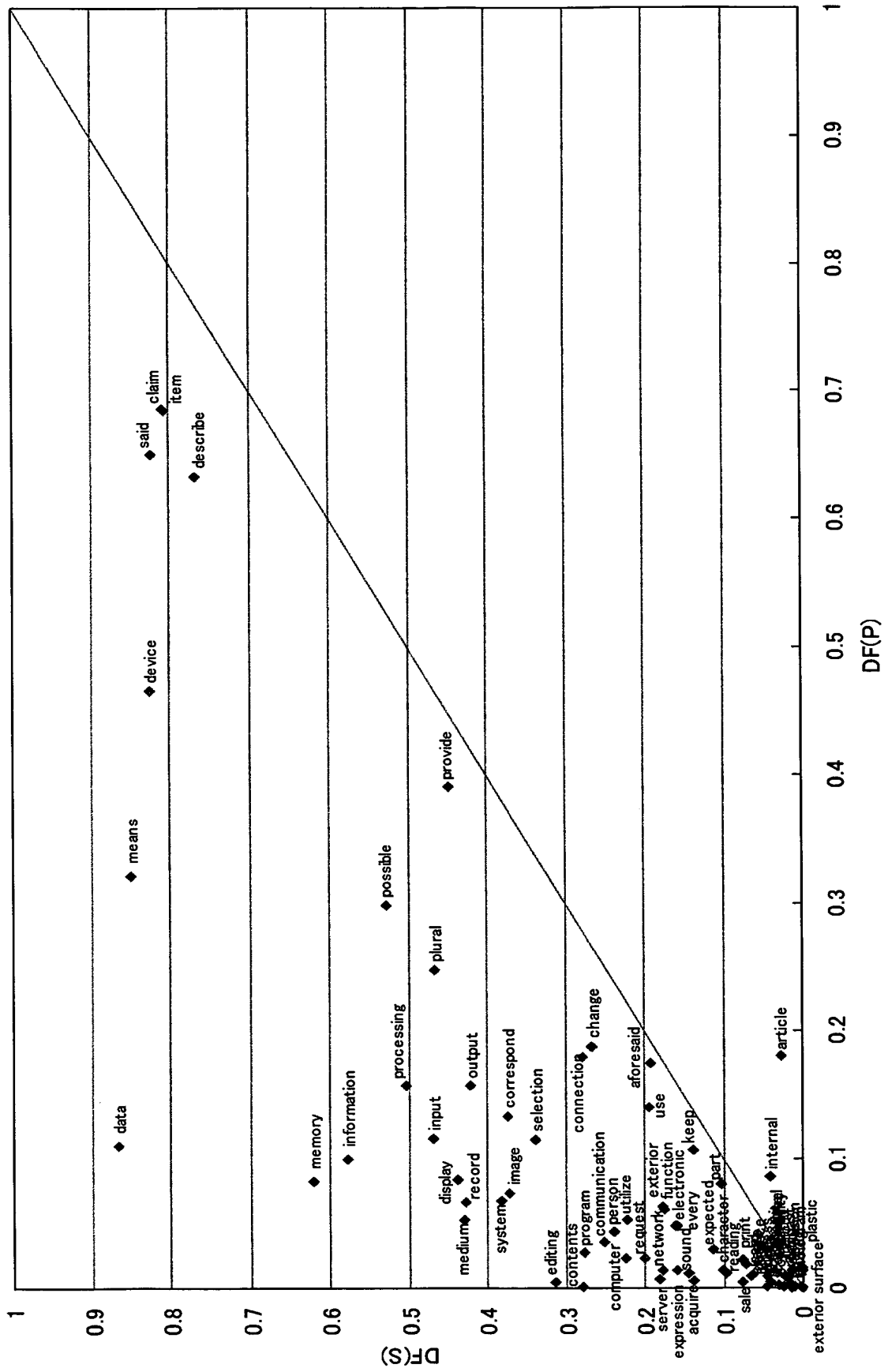


FIG. 21

"External Auxiliary Storage Device" IDF Plane -Linear Transformation-



FIG. 22

"External Auxiliary Storage Device" IDF Plane -Scale Transformation-



"External Auxiliary Storage Device" IDF Plane -Lower Half Hyperbolic Transformation-

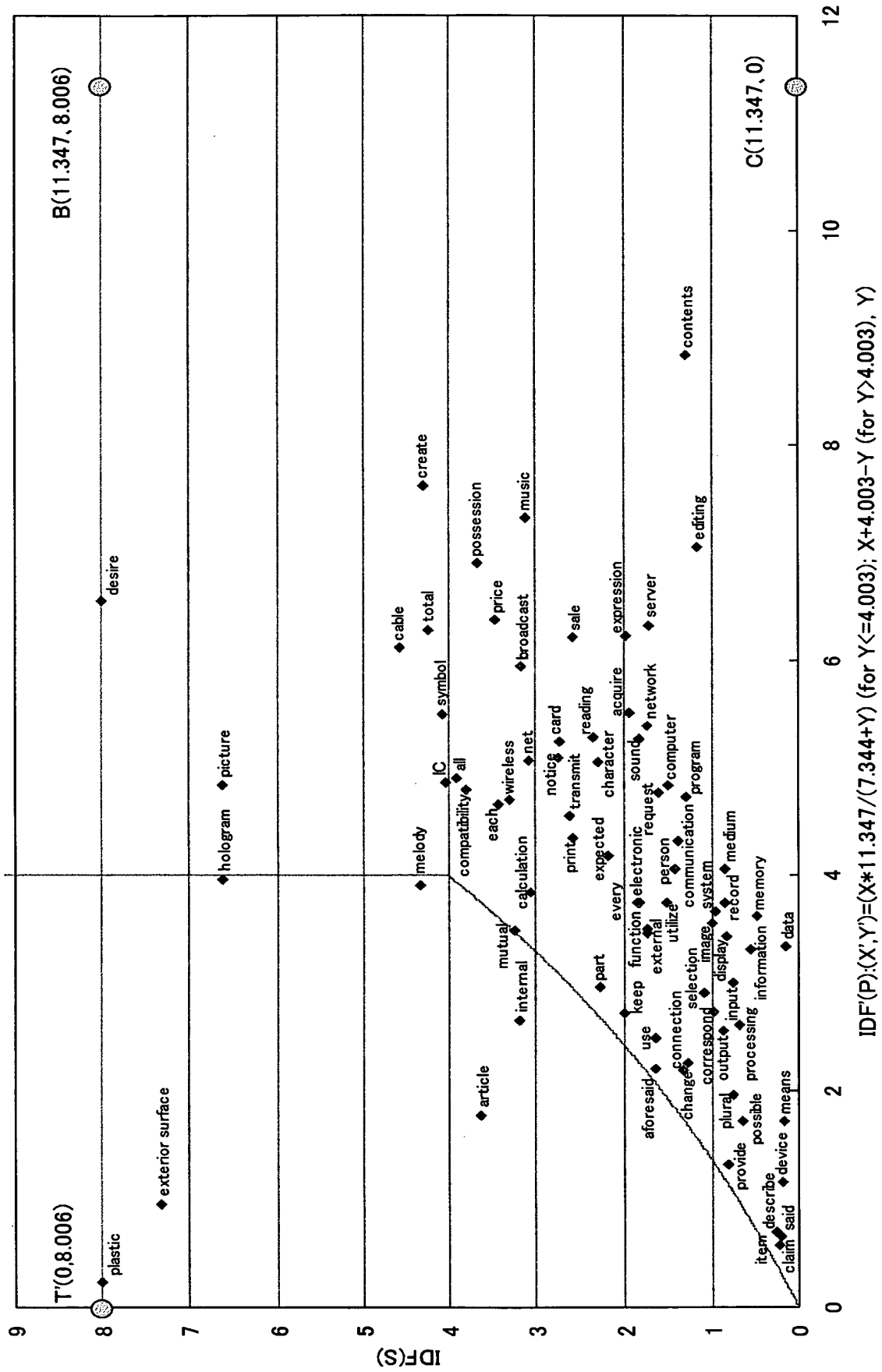


FIG. 24

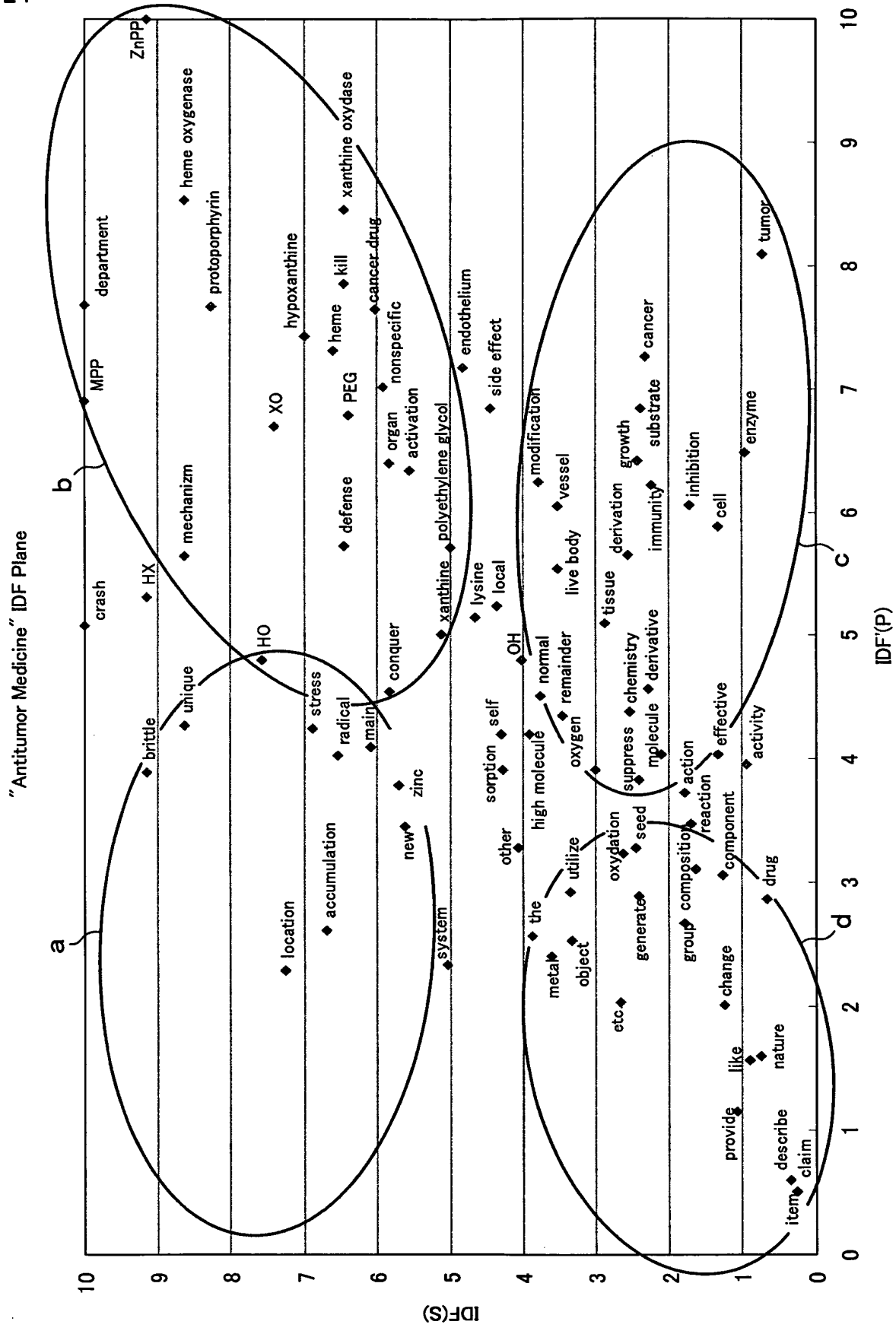


FIG. 25

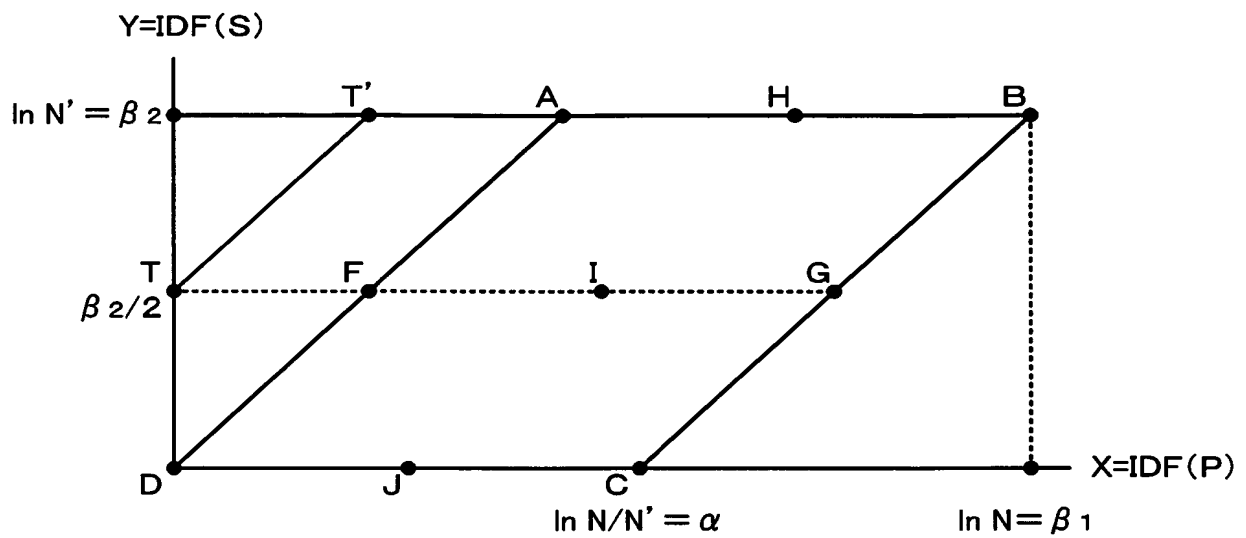
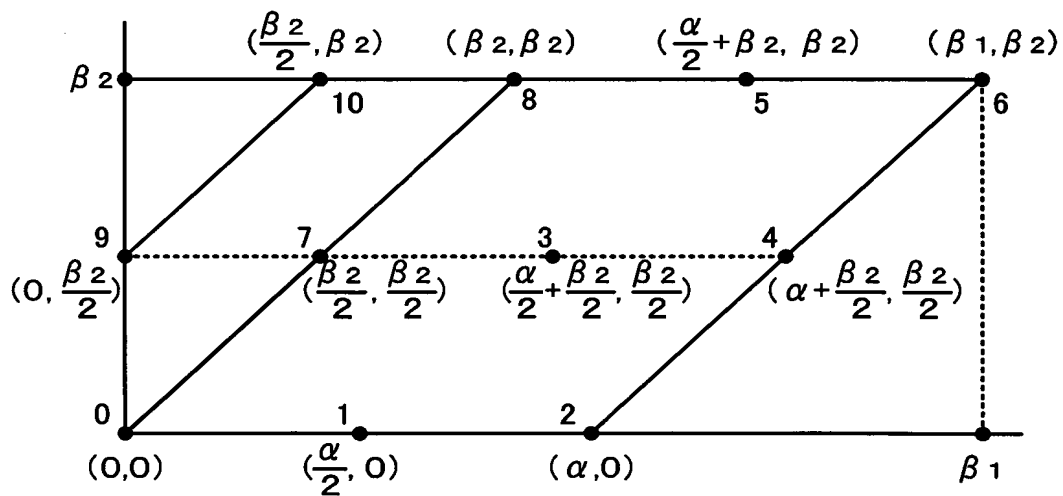


FIG. 26



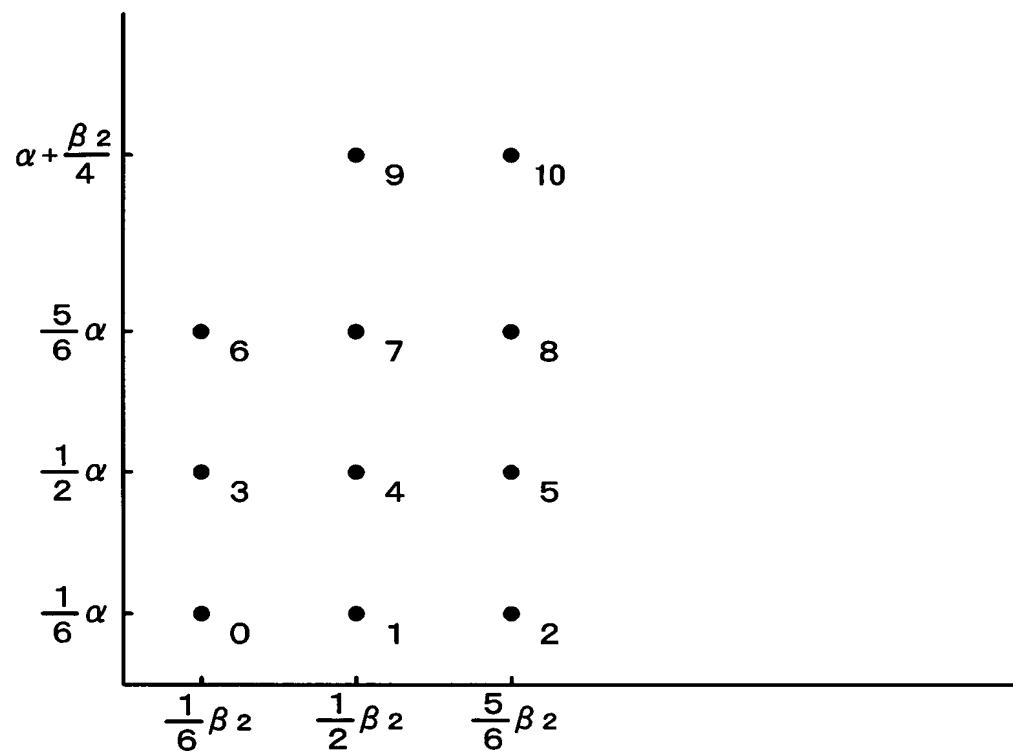
REFERENCE POINTS IN APPLICATION EXAMPLE 1 OF SOM

FIG. 27

"External Auxiliary Storage Device" Application Example 1 of SOM (11-point Orthorhombic Lattice)



FIG. 28



REFERENCE POINTS IN APPLICATION EXAMPLE 2 OF SOM

FIG. 29

"External Auxiliary Storage Device" Application Example 2 of SOM (11-point Lattice Inverse Transformation)

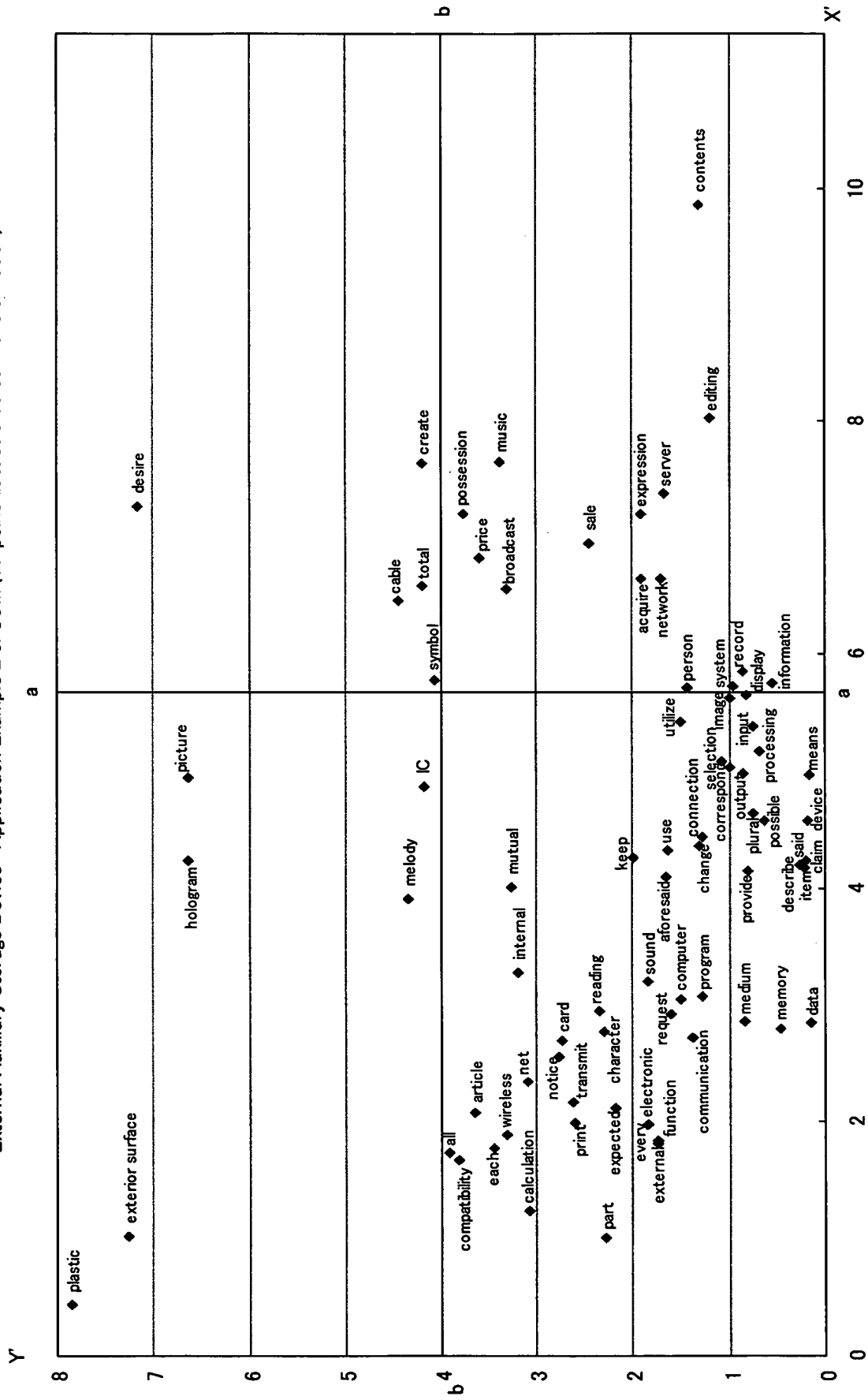
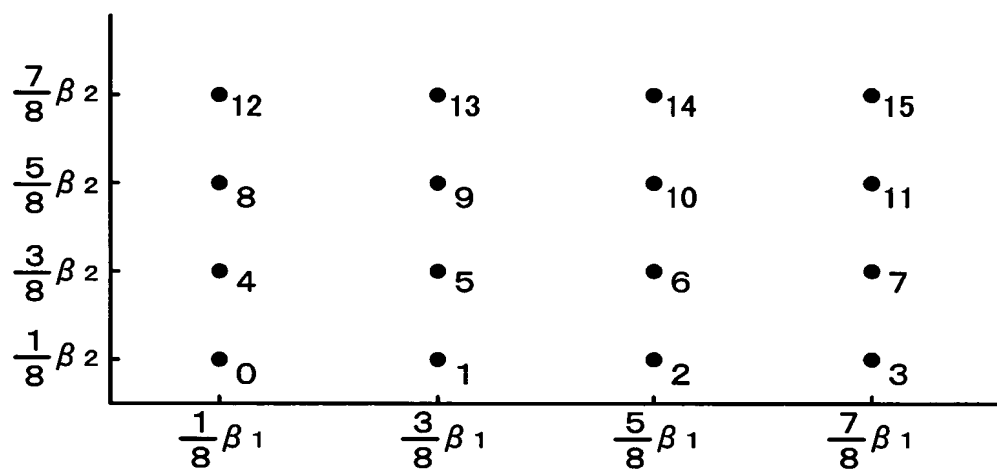


FIG. 30



REFERENCE POINTS IN APPLICATION EXAMPLE 3 OF SOM

FIG. 31

"External Auxiliary Storage Device" Application Example 3 of SOM (16-point Scale Transformation)

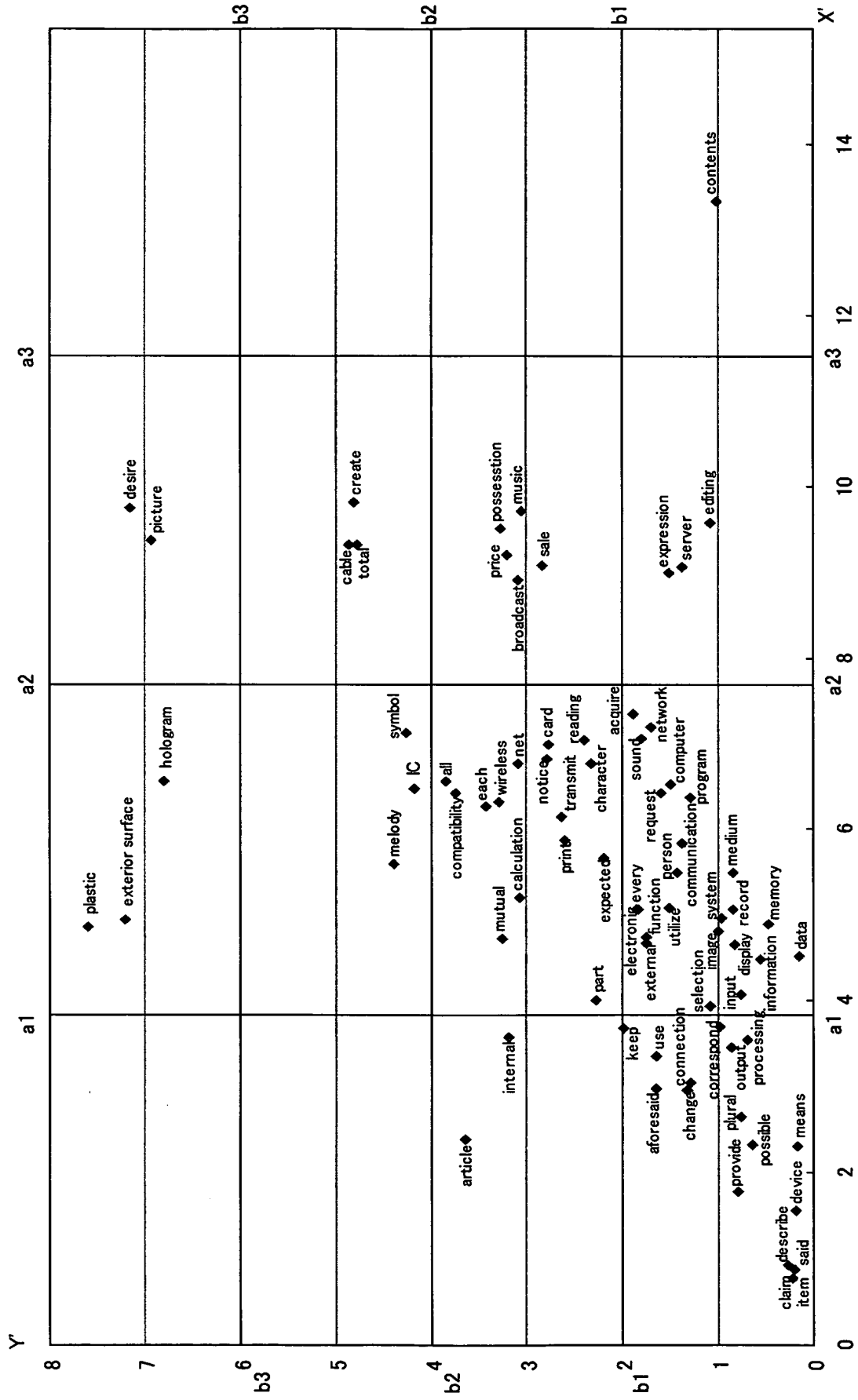


FIG. 32

"External Auxiliary Storage Device" Application Example 4 of SOM (Multi-dimensional Input)



FIG. 33

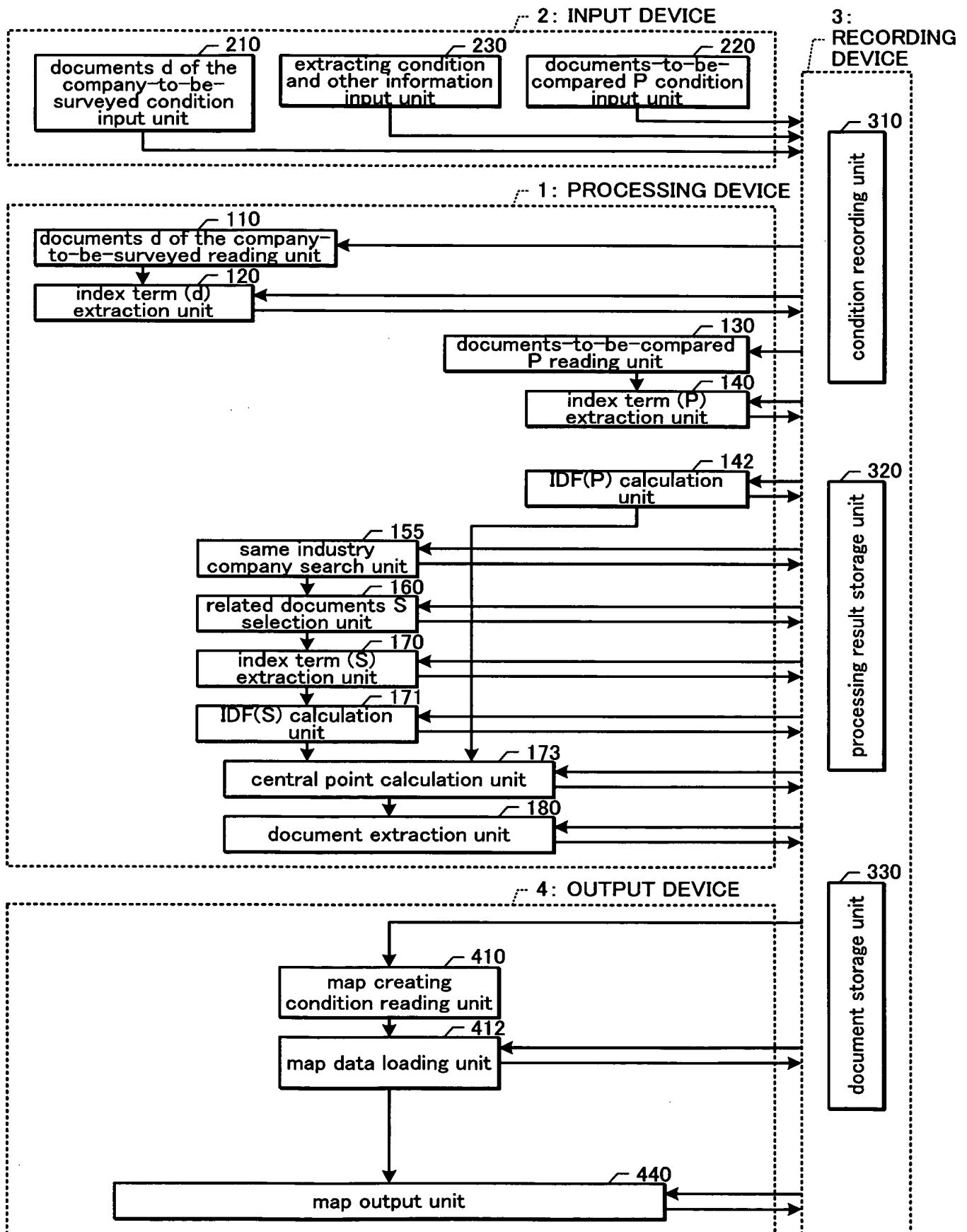


FIG. 34

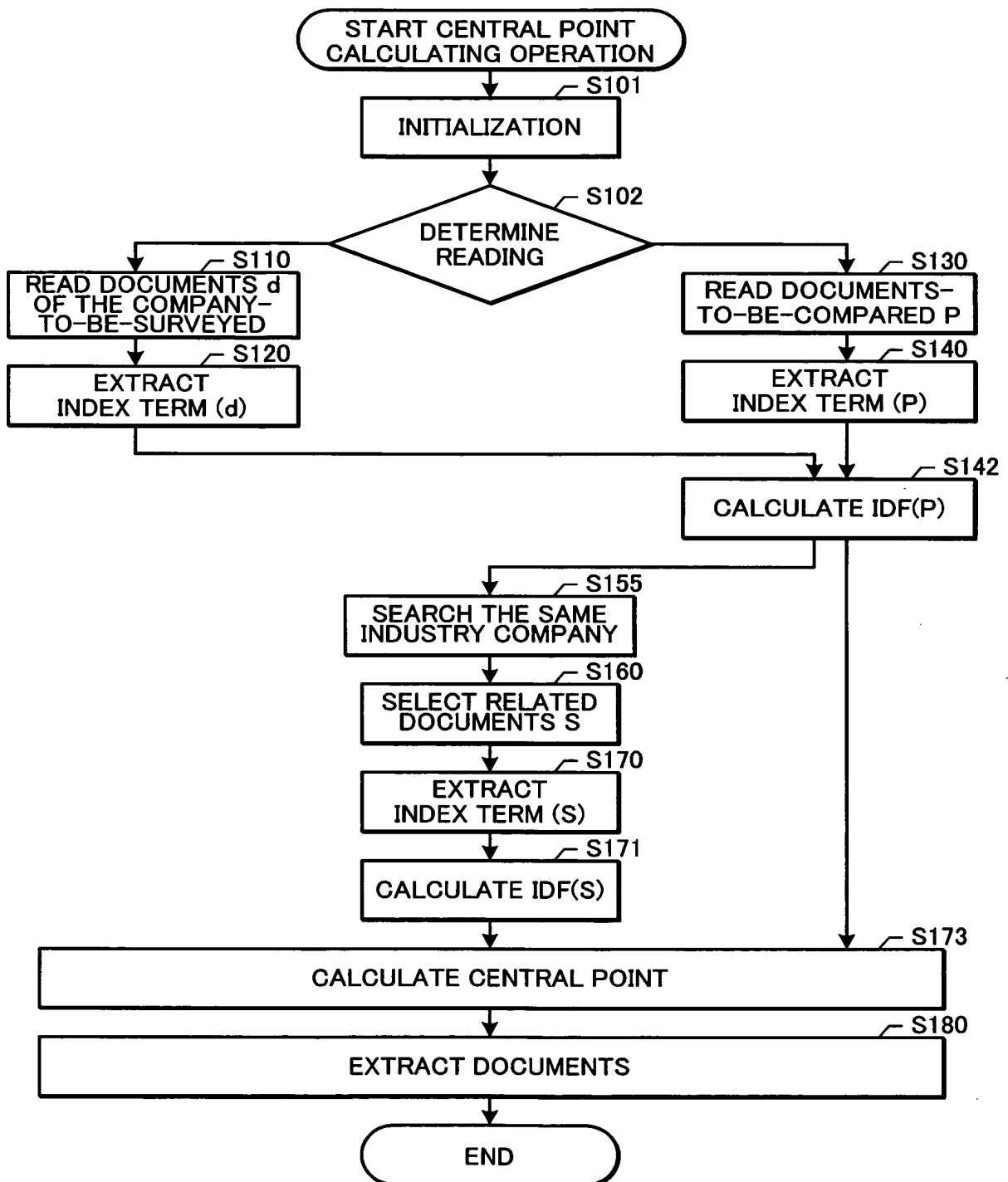


FIG. 35

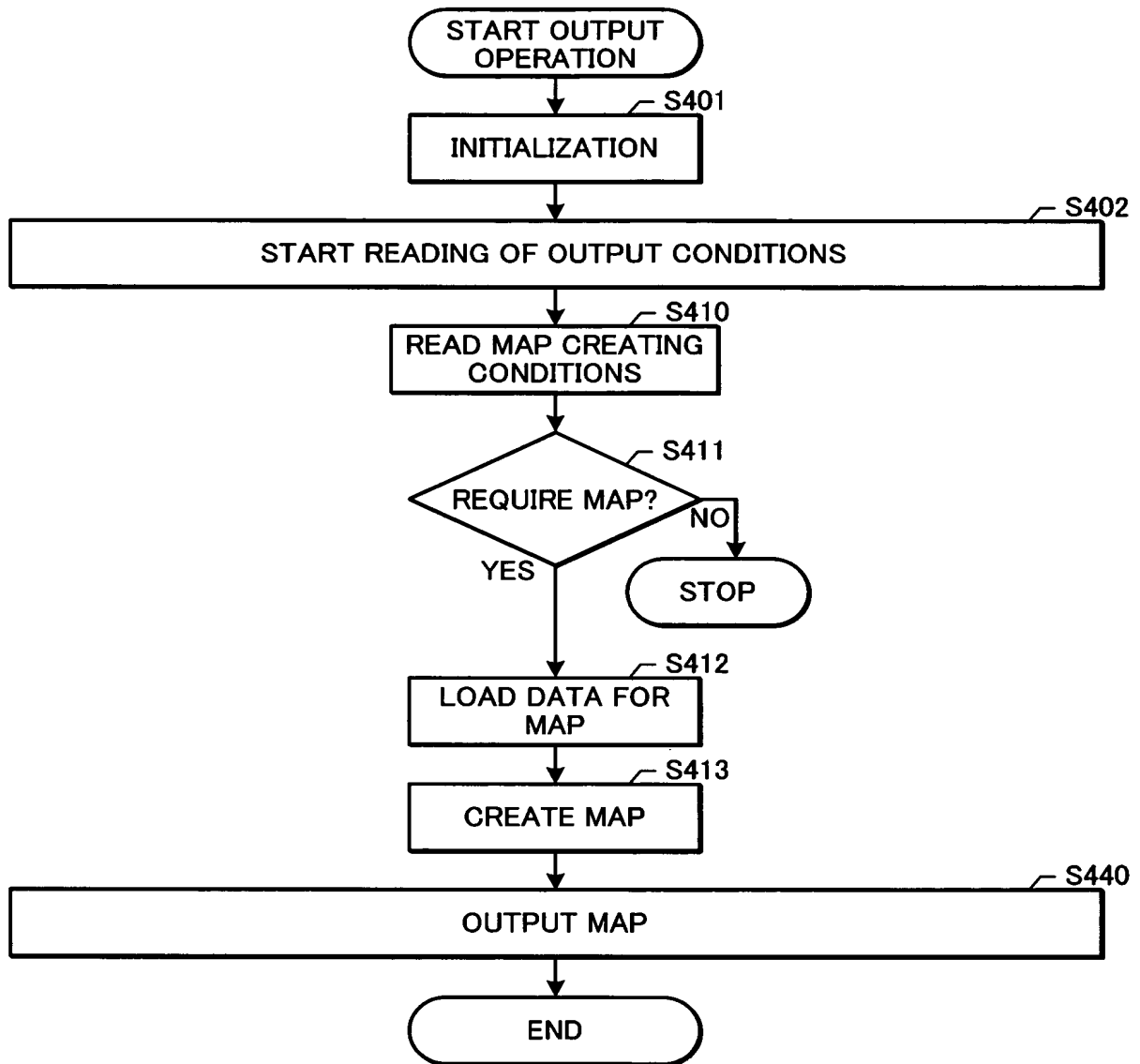
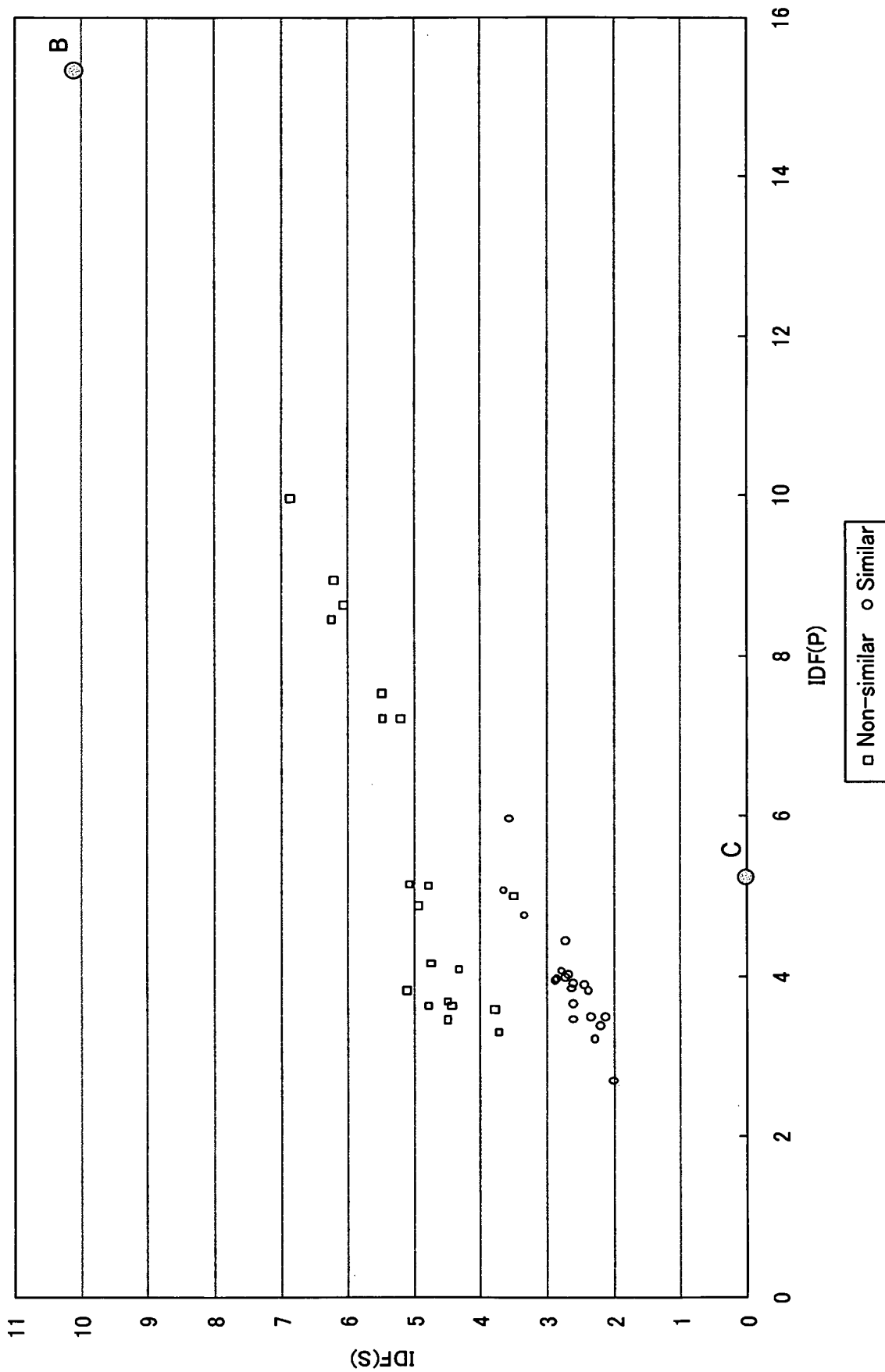


FIG. 36

"Company A" IDF Plane



Document Distribution of 3 Companies in the Same Industry

